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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,554	08/01/2001	Graeme John Proudler	B-4240 618934-9	4232

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HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

DAVIS, ZACHARY A

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 02/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/920,554	PROUDLER, GRAEME JOHN	
	<b>Examiner</b>	<b>Art Unit</b>	
	Zachary A Davis	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                                                        |                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>see Office Action</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The Information Disclosure Statements filed on 05 March 2002, 01 May 2002, 18 March 2003, and 15 December 2003 have been considered by the Examiner.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The disclosure is objected to because of the following informalities:

The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (see page 6, line 7; page 16, lines 24 and 25;

and page 17, lines 1 and 4). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Appropriate correction is required.

### ***Claim Objections***

4. Claim 13 is objected to because of the following informalities: The claim recites the limitation "to use of the input data" in lines 26-27. It appears that this is intended to read either "to use the input data" or "for use of the input data". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-23 and 30-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "at least some of the processes" in lines 9 and 12. Further, Claim 2 recites the limitation "at least some of the processes" in line 19, Claim 22 recites the same limitation in line 21, and Claim 30 also recites the same limitation in lines 24-25. The use of the phrase "at least some" renders the limitation vague because it does not describe a specific numerical range nor does it provide a clear basis for comparison. This renders the claims indefinite.

Claim 23 recites the limitation "the monitoring process provides an integrity metric of the computing platform to the requestor current when the service was performed". This is generally vague, specifically the phrase "current when the service was performed", as it is not clear whether "current" is modifying the "integrity metric", "the computing platform", or "the requestor". This renders the claim indefinite. For purposes of interpreting the prior art, it is assumed that the phrase is intended to refer to the "integrity metric" as "current".

Claims 3-21 and 31 are rejected due to their dependence on rejected base claims.

### ***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-6, 14-26, and 29-31 are rejected under 35 U.S.C. 102(e) as being anticipated by McNabb et al, US Patent 6289462.

In reference to Claims 1 and 2, McNabb discloses a method including a requester providing a specification of a service to be performed that establishes levels of trust for processes in the service (see, for example, column 19, line 55-column 20, line 2, where different processes are specified for different sensitivity levels) and a computing platform executing the service according to the specification (see the Trusted Server of Figure 1, and column 5, lines 20-29) and logging performance of the processes and providing the log to the requestor (the audit trail described at column 7, lines 28-33).

In reference to Claim 3, McNabb further discloses a protected computing environment (see Figure 1).

In reference to Claims 4 and 23, McNabb further discloses measuring integrity of the platform (see column 8, lines 40-45, regarding the trusted computer system).

In reference to Claim 5, McNabb further discloses a management process that allocates the execution of processes and logging to environments associated with the platform (see column 21, lines 34-55).

In reference to Claim 6, McNabb further discloses the management process within the protected environment (see column 21, line 34-column 22, line 2).

In reference to Claim 14, McNabb further discloses that a process may be swapped between environments (see column 11, line 66-column 12, line 14).

In reference to Claims 15-20, McNabb further discloses logging input data, output data, and executed program instructions of a process (see column 7, lines 28-33; column 23, lines 26-35).

In reference to Claim 21, McNabb further discloses encrypting the logging data (column 23, lines 26-35, where the audit record is protected).

In reference to Claim 22, McNabb further discloses the specification of the service establishing logging parameters for the processes (column 23, lines 26-35).

In reference to Claim 24, McNabb discloses a platform including a protected computing environment (see Figure 1) and one or more compartments (column 17, lines 9-14), in which processes may be executed for a user in the compartments and the results of the processes may be returned to the user as trustworthy data from the protected environment (see, for example, column 6, lines 20-23).

In reference to Claim 25, McNabb further discloses that the compartments may be located outside the protected environment (Figure 12; column 17, lines 57-61).

In reference to Claim 26, McNabb further discloses that the compartments may be located inside the protected environment (Figure 12; column 17, lines 57-61).

In reference to Claim 29, McNabb further discloses measuring integrity of the platform (see column 8, lines 40-45, regarding the trusted computer system).

In reference to Claim 30, McNabb further discloses a management process that receives a service description including levels of trust for processes within the service, and that allocates the processes to the compartments (column 21, lines 34-55).

In reference to Claim 31, McNabb further discloses the management process within the protected environment (column 21, line 34-column 22, line 2).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 7-13 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNabb in view of "HP Virtualvault Trusted Web-server Platform Product Brief", hereinafter "Virtualvault".

In reference to Claim 7, McNabb discloses everything as applied to Claim 5 above. McNabb further discloses the use of compartments (see, for example, column 17, lines 9-14). However, McNabb does not explicitly disclose that the compartment contains a protected computing engine. Virtualvault discloses a computing platform that includes the use of compartments, which include protected computing engines (see page 3, "Data Partitioning Separates and Secures Files"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to



modify the method of McNabb to include compartments containing protected computing engines, in order to provide security for web servers (see Virtualvault, page 2, "Virtualvault: The Answer to Secure Access").

In reference to Claim 8, Virtualvault further discloses a Java virtual machine (see page 4, "A 'Vaulted' Java Virtual Machine").

In reference to Claim 9, McNabb further discloses that one or more compartments are located in the protected environment (see Figure 12; column 17, lines 57-61). Further, Virtualvault further discloses that one or more compartments are located within the protected environment (see page 3, the INSIDE compartment).

In reference to Claim 10, McNabb further discloses that the computing engine is prohibited from operating on input data if it is not permitted to do so (see column 8, lines 10-15 on Mandatory Access Control).

In reference to Claim 11, McNabb further discloses that input data and processes are each provided with a type, and that the operation is prevented if the types do not match (see column 8, lines 10-15 on Mandatory Access Control).

In reference to Claims 12 and 13, McNabb further discloses that the input data may have an owner, and that the process may be required to inform the owner of the use of the data or to obtain consent from the owner to use the data (see column 8, line 54-column 9, line 4).

In reference to Claims 27 and 28, McNabb discloses everything as applied to Claim 24 above. However, McNabb does not explicitly disclose that the compartment

contains a protected computing engine, specifically a Java virtual machine. Virtualvault discloses a computing platform that includes the use of compartments, which include protected computing engines (see page 3, "Data Partitioning Separates and Secures Files"). Virtualvault further specifically discloses a Java virtual machine (see page 4, "A 'Vaulted' Java Virtual Machine"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of McNabb to include compartments containing protected computing engines, specifically Java virtual machines, in order to provide security for web servers (see Virtualvault, page 2, "Virtualvault: The Answer to Secure Access").

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

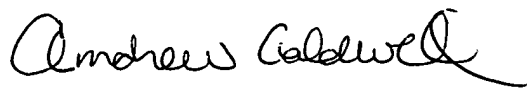
- a. England et al, US Patent 6327652, discloses a system that includes validating digital signatures of operating system components in order to measure the integrity of the system.
- b. Merklings et al, European Patent Application EP 0825511, disclose a trusted computing system that includes processes running in trusted compartments.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A Davis whose telephone number is (571) 272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
zad

  
**ANDREW CALDWELL**  
**SUPERVISORY PATENT EXAMINER**